

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 09/199,933

RECEIVED

JUN 04 2002

Inventor: Kevin T. Burt et al.

GROUP 3600

Assignee: Crane Products Ltd.

Filed: November 25, 1998

Examiner: Frederick L. Lagman

AFFIDAVIT UNDER  
37 CFR § 1.132

Group Art

Unit: 3673

Attorney

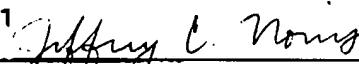
Docket No.: 1538-124E

Title: SEAWALL PANEL

## CERTIFICATE OF MAILING UNDER 37 CFR §1.8 (a)

Date of Deposit: May 20, 2002

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as first-class mail in an envelope addressed to Box RCE, Commissioner for Patents, Washington, D.C. 20231

  
Jeffrey C. Norris

Box RCE  
Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

The following affidavit is in response to the Examiner's Office Action mailed March 15, 2002.



Kevin T. Burt, being duly sworn, deposes and says:

1. I am a co-inventor with Miguel Terc of the subject matter of the above-identified application.
2. I have a Bachelor of Fine Arts degree in Industrial Design from the University of Kansas.
3. I have been employed by Crane Plastics Co. or a subsidiary of Crane Plastics Co. from about 1995 to date. I am currently a product designer for Crane Products Ltd.
4. Since about 1995, I have worked extensively in the design of numerous extruded and molded plastic products for Crane Plastics Co. and its subsidiaries.
5. The retaining panels of claims 1, 14, and 19 of the above-identified application have a distance from the female connecting portion to the male connecting portion of at least about 24 inches.
6. In the process of designing the retaining panel of the present invention, Crane Plastics ordered FEA testing by The Ohio State University of a structure comprised of interlocked Z-shaped profiles. The testing showed that the stresses were greatest in the areas of the interlocks between adjacent panels. Furthermore, the testing showed that the outer interlocks between Z-shaped panels were subject to the most stress and, therefore, were the most prone to fail under actual load-bearing conditions.
7. In addition, Z-shaped panels are relatively complex to install as compared to a retaining panel of the present invention. When installing Z-shaped panels, the installer must reverse every other panel. Furthermore, the outer interlocks of adjacent Z-shaped panels typically must be threaded together prior to driving the panels into position.



Otherwise, the outer interlocks have a tendency to twist, thereby preventing the interlocking of adjacent panels.

8. To my knowledge, retaining panels at least about 24-inches wide were not known or used prior to our conception of the present invention. To my knowledge, the width of retaining panels at the time of our conception of the present invention was limited to about 18 inches or less. In particular, a common width of retaining panels at the time of our conception of the present invention was only 12 inches or 18 inches.

9. Known Z-shaped panels and panels that are only 18-inches wide or less require a significant number of interlocks in order to form a structural barrier. As previously noted, the interlocks are subject to the greatest amount of stress. Consequently, the interlocks are the most prone to fail in the field. In addition, in applications where a containment wall requires impermeability, a very expensive sealant is commonly used in the interlocks. Consequently, a significant number of interlocks requires a significant amount of the sealant, thereby resulting in a costly structure.

10. The present invention solved a long felt need to reduce the number of interlocks and increase the ease of installation. A retaining panel of the present invention has a width of at least about 24 inches. The increased panel width provided by the present invention allows a retaining structure to be formed with fewer individual components. In addition, the increased panel width enables a retaining structure to be formed with fewer interlocks (e.g., about  $\frac{1}{2}$  fewer interlocks as compared to some known Z-shaped panels). Furthermore, the integral panel design of the present invention eliminates outer interlocks between adjacent panels. As a result, the possibility of a retaining structure failing due to stress on the interlocks is significantly lessened. Moreover, the



reduced amount of interlocks significantly lessens the amount of expensive sealant that may be required in applications that demand impermeability. The integral panel design of the present invention also enables the installation of a retaining structure without having to reverse every other panel or thread together outer interlocks prior to driving the panels into position. In light of these features, a retaining panel of the present invention may facilitate the construction of a retaining structure that is significantly less susceptible to failure caused by the stresses of a load-bearing situation.

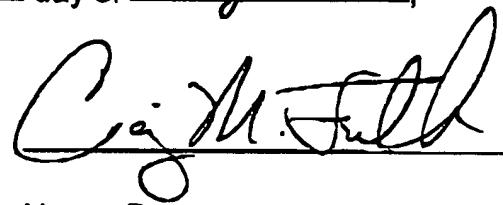
11. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true. I further declare that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-referenced application or any patent issuing thereon.



COUNTY OF FRANKLIN )  
STATE OF OHIO , 58:

Kevin T. Burt

Sworn and subscribed to before me this 20th day of May,  
2002.



Craig M. Fullen  
Notary Public

My commission expires \_\_\_\_\_

CRAIG M. FULLEN, Attorney At Law  
NOTARY PUBLIC STATE OF OHIO  
My commission has no expiration date.  
Section 147.03 R.C.

